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TOXICAL EFFECTS OF HYDRATE OF CHLORAL, WHEN PERSISTENTLY USED AS A HYPNOTIC, AND FATAL RESULTS OF LARGE DOSES.

By N. R. Smith, M.D., Baltimore, Late Professor of Surgery in the University of Maryland.

In February last, a medical friend, long retired from practice, called on me for advice, in regard to a singular affection of the fingers of both hands, attended with desquamation of the cuticle and superficial ulceration, especially about the borders of the nails. It was attended with pain, and much morbid sensibility to touch. It was also associated with some acceleration of pulse, and general malaise. He visited me daily for some ten days, when, by the use of astringent lotions and mild digestive ointment, the local affection was overcome.

He informed me that he had been taking chloral, in liberal doses, as a hypnotic, for four months. He expressed to me his conviction that the disease of his fingers had resulted from the use of that medicine.

Having never observed the agent to produce such a result, I was reluctant to believe that it was the case.

Some three weeks after the cure of the local affection, I was called to attend my friend in consultation with his family physician. We found him laboring under acute bronchitis in severe degree. His respiration was exceedingly embarrassed, and there was a high degree of hoarse mucous râle. The bronchial tubes were filling; the pulse was about 140, and the action of the heart *extremely feeble*. By the treatment adopted, our object was to sustain the powers of life, which were rapidly failing, and to relieve the bronchial tubes of mucus. Our efforts, however, were unavailing. He died on the third day after I first saw him.

I scarcely, at the moment, entertained a suspicion that the use of chloral was concerned in producing the fatal malady of my friend, it being not at all uncommon for persons of his age (70), to succumb suddenly to such malady from ordinary causes.

Some three weeks later, I accidentally met a medical friend, who expressed pleasure at the meeting, as he wished to consult me in relation to a singular affection under which his daughter, a young lady twenty-two years of age, was suffering. He described precisely the affections of the integuments of the fingers which had occurred in the case described above, erythematous inflammation, desquamation, and ulceration around the border of the nails.

Struck with the resemblance which her malady bore to that of my friend, Dr. C., I inquired if she had been taking chloral. He replied that she had taken it as a hypnotic, for a month, every night, and that he had suspected that article to be the cause of her disease.

The young lady was not suffering constitutionally at that time; but about ten days after, I was called to see her. I found her extremely ill. There was universal anasarca. The action of the heart was exceedingly feeble, the pulse 140, and extremely weak. Her respiration was much embarrassed, and the recumbent posture was impossible. Procuring some of the urinary secretion, I tested it with nitric acid, and discovered a notable quantity of albumen.

I was very apprehensive of a fatal result, but immediately prescribed stimulants and diuretics, digitalis being the constituent most relied upon.

On visiting the patient, after an interval of a day, I was much surprised and gratified to find her greatly improved. Her pulse had been reduced to 90, and was greatly improved in tone. The kidneys had acted freely, and the anasarca had much abated.

Having been myself confined by illness, I did not again see her. On meeting her father, some three weeks later, I was gratified to learn that she had entirely recovered.

I have knowledge of two other cases, in which the same affection of the fingers resulted from the use of chloral.

Within the last ten days, two deaths have occurred in Baltimore, manifestly from the toxæmia caused by an overdose of chloral. The subject of one of these accidents had been under the care of an irregular physician, and by his advice had taken chloral in ordinary doses, for the relief of a painful neuralgic affection of the neck.

After the medical attendant had discontinued his visits, the patient persisted in the use of the hydrate, taking it, as I was informed by his brother, in doses of not less than half a drachm. On the day of his death, he was known to have purchased three drachms of the article. How much he took during the day is unknown. In the evening he retired to his chamber, and in about twenty minutes after, was found dead beside his bed. He was undressed, the bed-clothes were turned down, but the bed was undisturbed, and it was manifest that death had arrested him at the moment that he was prepared to step into bed. The coal-oil lamp which he used was extinguished, but the glass chimney was still hot. The glass from which he had taken the chloral stood on a small table near the head of the bed, and in it were a few drops of the medicine, recognized by his brother, by taste and smell. There can be no doubt, therefore, that he fell almost instantly dead, from the effects of the poison.

Another instance of almost equally sudden death has recently occurred in this community. The fact is generally known, but I am not authorized to name the individual. He had been laboring under a painful affection of the head, and was attended by a Homœopathic physician. On the evening of the night of his death, he had a hypodermic injection of morphine practised upon him, probably in ordinary quantity. This not relieving his pain, chloral was administered. He went to bed, soon became quiet, and for some hours was left undisturbed. His perfect stillness at length attracting attention, he was found to be dead, and probably had died soon after the administration of the chloral. I have no reason to believe that the medicine was given in larger dose than has been recommended as safe by high authority, nor do I know whether he had taken it for any length of time.

Another case of which I have knowledge was that of a lady, who had undergone a severe surgical operation. As she suffered pain and was restless, it was determined, in consultation, to give chloral by injection, so as to avoid irritating the stomach. A drachm and a half was thrown into the rectum. She at once sunk into a state of insensibility, and died in some three hours. An eminent physician, of Washington, who was in immediate attendance on the case, Dr. N. S. Lincoln, gave it as his opinion that she died from the effects of the chloral.

These cases are, it appears to me, amply sufficient to establish the toxical effects of this powerful agent. It is probable that its poisonous effects are exerted in two ways.

1st. When given in a large dose, and especially where the system may have been charged with it by its previous administration, it at once overwhelms the powers of life, and causes immediate death. Upon what organ or organs does it exert its deadly effects? It must be either upon the heart or the brain, perhaps on both.

It is believed that chloral, entering into the blood, developes chloroform in that fluid, the amount developed being determined, not merely by the quantity taken, but by the condition of that fluid. Chloroform, we know, when respired, exerts its influence upon both brain and heart. In the numerous cases in which it has caused death, this result has been produced by its interrupting the circulation.

2d. It appears, when given in small doses, and continuously for some time, to induce a form of toxæmia similar to that caused by the continued administration of ergot. Its effects on the fingers of both hands, in the two cases related above, would justify such a belief. It is well known that animals fed on spurred rye suffer gangrene of the extremities.

In one case in which I tested the urine, albumen in notable quantity was detected. This case alone, however establishes nothing.

Another very interesting and important inquiry is certainly suggested by the foregoing observations, crude as they are.

If chloroform, developed in the blood from chloral, is productive of such disastrous effects, primary and secondary, can the direct inspiration of chloroform be as innocuous as it is thought to be?

The profession are sufficiently aware of the fatal primary effects of chloroform in numerous instances. It has undoubtedly caused death in many cases in which it has been given, with every caution in regard to quantity and mode of administration—in cases, too, where there existed no malady of brain or heart to forbid its use. In some instances it has been administered fatally, in which it has been previously treated with good result.

But I would more especially call the attention of the profession to the chronic poisoning of the blood, which I believe results from its free and repeated use.

The writer of this article has administered chloroform perhaps as often as any other surgeon in America, both in hospital and private practice, commencing its use from the time of its discovery, and its first application as an anæsthetic. Indeed, I have been constrained to use it in many cases in which my judgment was adverse to its use, for such is the overweening confidence in its effects, that many patients refuse operations except under its influence. But the more I have used chloroform the less has my confidence become in its innocuousness. When I compare the results of my operations, performed before anæsthetics were employed, with those performed during the last twenty years by the aid of chloroform, I am satisfied that unpleasant secondary results were less frequent during the past period than they have been under the use of that agent. I allude to secondary hæmorrhage, pyæmia, erysipelas and hospital gangrene.

Whoever will take the trouble to look over the medical journals and retrospects of the last two years, will discover that pyæmia, or septicæmia, occupies far more space in surgical records than it did before anæsthetics were so generally employed.

When chloroform is administered during the period of an hour or more, as it frequently is, it undoubtedly enters, copiously, into the circulation, not only powerfully impressing the brain and heart, but modifying the constitution of the blood, and functions of the capillaries. If the effect of chloroform, developed from chloral in the blood, be such as I have shown, on the functions of the minute vessels, causing erythema and ulceration in the extreme parts, may we not suppose that the introduction of chloroform, more directly into the circulation, may promote the occurrence of those results not uncommon before its use. These suggestions, I trust, will not be regarded as impertinent from one who has practised surgery for more than half a century, without, and with, the anæsthetic agents.

I doubt not that, if these remarks are deemed worthy of any notice at all, they will be rejected by the majority of the profession, but I have an abiding confidence that their truth will be ultimately acknowledged.

RIGOROSA IN THE GERMAN SCHOOLS.

A Letter by Dr. Carl Vogt; translated from the Wiener Tagespresse, by D. F. Lincoln, M.D., Boston.

The following letter by Carl Vogt may be taken as bearing directly and pointedly upon the questions which are now undergoing discussion in Vienna medical circles. Its sentiment is quite that of the liberal and progressive element in this School.

The author first describes his own youthful reminiscences of the examinations in Giessen, and draws an amusing picture of the quiet, old-fashioned corporation which had its comfortable nest in that place. He then continues:—

About the year 1831 this guild changed its character, and became a great manufacturing company. The English and the Americans had found out that the degree of Doctor of Medicine was conferred *in absentia*, in Giessen, and that in order to obtain the degree it was only necessary to send the fee, with a thesis, which they could easily find some one else to write for them. The business flourished greatly. The Faculty had its own agent in London. The office of Dean—which was tenable for only one year—brought, in round numbers, the sum of five thousand gulden to the holder. When my father was invited to Berne, in 1834, and the government of the State declined to offer inducements to keep him in Giessen, his colleagues proposed to admit him to the privilege of election to the Deanship, which would have been equivalent to an annual addition of a thousand gulden to his salary. My father thanked them, but preferred to go to Berne.

The manufacturing business lasted till about 1850. In that year, the conferring of degrees *in absentia* was stopped; foreign candidates were subjected to the same examinations as the natives; the manufacturing phase of the Giessen University passed away. But the money thus sacrificed had to be made good in some way, and this was successfully accomplished by the whipping-in system.

Let me explain. I believe there is not a university professor in the world who can live respectably upon his salary, and at the same time fulfil the requirements which science makes upon him. Every one must add to his income by some side-duty. In Germany it is science itself that presents him with the opportunity of earning money, through lecture fees and examination fees paid by the students. This is fortunate for Germany; in France the professor has only his examination fees—hence the decay of medicine in France! Should I, the fortunate occupant of a professorial chair, succeed in making the subject of my lectures obligatory, so that the student who fails in my examinations is entirely rejected, every student would take a ticket to my lectures—pay for them—perhaps attend them; and, if I am the sole examiner in the department, I can carry my plans so far that every student shall pay for two courses of my lectures.

This is the whipping-in system. Unless a man wants to be rejected, he must enter through a certain door. The system can be traced almost everywhere; some carry it out with more moderation than others; in general, the superior professors, whose lectures are attractive, are free from this reproach, while the demigods are all the stricter in their requirements. The matter belongs, in part, to the secrets of the trade, which every master-workman knows, but which are not made public; but in every university there are some lecturers who reject every one who has not attended their own courses, and who pass with honor every one who has twice taken and paid for them.

Why do I now speak of this? Because I read in your journal of the 14th an article by Dr. Schnitzler upon the Carsten affair, which demonstrates plainly that the whipping-in system must flourish in Vienna as nowhere else, unless it be mitigated by individuals. If the article is correct in its statements—and I have not the slightest doubt of it—then all the legal and administrative conditions for this state of affairs is abundantly provided.

Before going further, let me state how the examinations are conducted in Geneva. One can often learn from those who are smaller than one's self. The law directs that all examinations shall be held in presence of a jury. The members of the jury for every examination, in the higher and lower schools, and in each department, are nominated by the Minister of Public Instruction. The preference is given to men who are disconnected with the schools in question, or who are not teachers at all. For example, I have myself served for years on the jury for German, in the lower gymnasium, with a pastor, an educated German merchant, and a watch-maker; and at the last examination in geology, my associates were a colonel and a landed proprietor, both practical geologists, and without a wish ever to become professors.

The questions to be asked are submitted to the jury, and, if approved, are put into an urn. When the languages are the subject of examination, the jury, without consulting the teacher, itself determines the place to be translated and commented upon. All examinations are held in public.

Each member of the jury receives a list of the candidates, who are summoned in turn, draw a question from the urn, and answer the question upon the spot. The president of the jury gives help when needed. Every member of the jury can ask questions (upon the subject drawn), and at the end of the allotted time, usually ten minutes, the candidate retires, and each examiner inscribes a number against his name. When the examination is completed, the candidates and the audience retire; the jury compare their lists and decide upon the mark to be given each candidate, in case of doubt the majority ruling. The marks are sealed and sent to the Dean, who opens them at a given time in the presence of a jury. The highest mark is 6, the lowest 0; those who have an *average*, upon all examinations, of three or more, are passed, while a lower *average*—or a lower mark upon a *single important* study (as Latin in the gymnasia)—throws back the candidate for three months. If the mark for a "side-study," or one of secondary importance, is less than two, the candidate must make it up within three months. If a question be drawn which the candidate is wholly unable to answer, he has the privilege of drawing a second, upon the condition of receiving one-half the mark.

Let us suppose, by way of illustration, that the student is examined upon chemistry, physics, mineralogy, botany, zoölogy, and receives the respective marks of 5, 4, 2, 3, 4. His average is 3·6, and he is passed; the mark 2 was given for mineralogy, which is considered as a side-study, and he is not required to make it up.

Every system must have its faults, but I have not yet found one which better answers to what one ought to demand of an unprejudiced examination. It leaves the teacher his rights, in so far as it gives him the lead in conducting the examination. This is only right; for many sciences are making such rapid progress that an examiner may stand upon an entirely different plane from the candidate, even in regard to the facts. I think I am not affirming too much, for example, in saying that nine-tenths of the practitioners of to-day, over forty years of age, are entirely incapable of judging of an examination in physiology; and, further, that it will be very hard for a student to find himself at home with the ideas of an examiner with whom he has not studied. For this reason, every man, be he docent, or professor ordinary or extraordinary, who has lectured upon the subject, should take part in the examination, and the same jury ought always to officiate at every examination in the department for which it is nominated. The whipping-in system, dependent upon the preference of one teacher as examiner, is thus broken at a blow.

By this system, partiality to candidates is avoided as far as possible. The examiner cannot give easy questions to one, hard questions to another; he cannot indicate beforehand, in mysterious words, the subjects which he means to question upon, nor can he prepare himself upon a special topic with the object of overthrowing a candidate. The associate examiners prevent him from exhibiting too open partiality for a candidate. Do not tell me that such things do not occur; I have had repeated personal experience of them all! Furthermore, the system prevents the candidate from special "cramming"; the questions are all made public some time before the examination, but the pupil must be equally prepared upon them all, as he has to answer immediately upon drawing a question. * * * The entire object of an examination is fulfilled if it informs us whether the candidate possesses a sufficient knowledge of his subject; and as it is impossible to go over the whole, we act the part of an assayer, who mixes his mass thoroughly and then tests a small portion for its percentage of gold. If we could invent a machine for indicating the scientific contents of a man's brain, without the necessity of passing this through another brain for judgment, such a machine would be unquestionably the best possible examiner.

(The author then disclaims all knowledge of the merits of the Carsten question, and says further :—)

I am entirely agreed with Dr. Schnitzler in his sentiment—rather give up the study of natural science, as a part of medical education, than postpone the examinations to a late period.

But it were the greatest misfortune that could happen to the study of medicine in Austria, if the natural sciences should cease to be held an indispensable pre-requisite. By neglecting these sciences the medical faculties would sink to the level of barber-schools. Surely, the practical departments, pathology, surgery, midwifery, are nothing but applied natural sciences; and how can one apply a thing which he has never learned?

The practical point of importance here is not simply the amount of knowledge of facts —which the physician will be the more sure to acquire, as his daily bread must depend upon them—but also, and especially, the acquisition of methods applied by the natural sciences in proving facts, in drawing conclusions and in establishing laws. The course of education which the boys in the gymnasium have to pass through, in order to stand the graduating examination and enter the University, is entirely unfitted to this end. Philological and historical studies predominate; and while I admit the necessity of this close training, in so far as that no other can be substituted for it—I still hold, as the result of my own experience, to the belief that this plan of study rather diminishes the power of observation and of estimating facts, and that the young men come to the University without an idea of what is meant by observing—collecting real facts—analyzing phenomena. This has to be learned, just as a child has to learn walking and seeing; and nobody can be a good physician who has not learned it. We, in Geneva, go as far in our conviction of the usefulness of natural science in this respect, that we regard its study as the necessary and indispensable pre-requisite for the studies of all the other faculties, and permit no one to commence these studies who cannot show a certain proficiency in natural science. We give the freest choice between physics, zoölogy, botany, chemistry, &c.; the subject is entirely indifferent to us; but the methods and the ways by which the natural sciences reach the knowledge of facts from which to draw conclusions, these he must learn before he enters upon his special line of study.

If this preparatory study is necessary for every one who wishes to live in society, it is still more necessary for the physician.

It is said that a man can be a very good physician without knowing that chamomile tea is prepared from a plant and a flower which belong to the Syngenesiæ. That is quite true; the practising physician can have forgotten that; but, nevertheless, he ought to have known it once.

Permit a personal illustration. I have taught zoölogy and comparative anatomy for nearly twenty-five years; these branches are my favorite pursuit. But if today I had to pass an examination upon human anatomy, and especially upon surgical and regional anatomy, I would bet ten to one against my passing. Can I therefore say that I did not need these studies? Truly, no! I once pursued them, and was as well-grounded as anybody, and I had to be so in order to pursue my studies further. A multitude of particulars, which I had to learn in order to gain a living insight into the whole of science, have left me; but the insight has remained, and upon the basis then gained I have been able to build my house higher, although some of its sculptures and ornaments have perished through time and storm.

What practical result follows from what I have said? Simply this: that it is a crime against science and an offence against the students to crowd so many studies together in one late examination, as is done in Vienna and many other places.

We cannot take a second step before we have taken the first. There is a logical sequence in science, which cannot be reversed. As little as we can begin the study of mathematics with the integral and differential calculus and end with the multiplication-table, so little can we study physiology before anatomy, and surgery before both.

The cumulated examination, like so many other things in our Universities, is a relic of the middle ages. It comes down to us from a time when a man could be a polyhistor. In many Universities, this time lasted till very lately; my own academic studies reach back to it, for at the time I was a student in Giessen (1833 to 1835), Wilbrand was teacher of botany, zoölogy, anatomy and physiology, with natural philosophy, and at the same time was director of the botanical garden and the anatomical institution. Was it strange that he examined in all these studies—upon which he lectured?

The unnatural conjunction of subjects is further a result of the absurd arrangement of the faculties, which assigns the natural sciences now to the medical faculty, now to the philosophical, instead of giving them an independent standing. With the medical faculty they have a better chance, for medical men usually have some understanding of the need of laboratories and museums; but the forced alliance with physiologists, philosophers, historians, and men of similar specialties in the so-called philosophical faculty is the most ridiculous and the most obstructive arrangement that could be imagined. Contests and rivalries arise upon every question, and spin themselves out interminably. Every matter of common interest is looked at from two diametrically opposite points of view.

The natural sciences have fought their way out of the theologico-philologic pinafore they wore in the Middle Ages, not only to an independent position, but to the most important position in the State and Society. They have become the basis, not only of medicine, but of the whole productive life of the nation. * * * * *

Whoever will understand the decisive word as uttered by Science, must have learned the language in which the word is spoken.

One of the most renowned chemists of the present day, whom I am proud to call my instructor, made the following remarks upon examinations and kindred topics: "It is quite an indifferent matter to me whether a man knows how to distinguish uranium from cadmium; perhaps I myself do not know, and when the case occurs I can look it up in Rose. But he must understand the language of chemistry; he must know what the important points are in matter to which chemistry can give an answer; he must know what this answer will speak about, and what its purport will be; whether he has learned the language from uranium or iron, is of very little consequence."

I have never yet attained to any other view. Special facts disappear from the memory; we forget the words of a language which we no longer use daily; but when we have to read or hear it, we find ourselves back in the old place in a few hours, and even guess missing words from the context.

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The examinations must be divided—the medical into at least three stages, perhaps more; but it is my opinion three are indispensable. First, natural sciences; second, anatomy and physiology with their branches; third, practical branches.

Among the many senseless, entirely unsuitable arrangements which the French possess, the result of which is the demoralization of the whole system of education, from top to bottom, there is one good thing to be found; no one is permitted to study medicine who is not a bachelor of sciences, and who, therefore, has not gone through with certain studies and passed a satisfactory examination.

I do not need to be told that in French practice this study, like every other, is scarcely more than a matter of memory; that most of the candidates learn the answers to the questions propounded once for all, as a routine affair, by the minister, and the examiners accept these answers, glad when the whole thing is past. I have had practical experience of this. I have for years had to examine in natural science the French students of theology among us; they learn by catch-words, which they underscore in their notes. If the catch-word does not occur in the question, they are dumb as fishes, and all the cross-questions, intended to bring them upon the right track, are as good as spoken to posts until the word is uttered. Then they go off, like a piece of clock-work when its spring is touched; the machine rattles off its lesson like a musical snuff-box, and cannot be made to stop till it gets to the end. I have often amused myself by pointing out these catch-word candidates beforehand to my companions on the jury; I recognize them in the lectures by their writing as if possessed and never looking at any object that is passed around. But does it follow that the principle of examinations is wrong?

Let, then, the natural sciences be established in our universities as an independent faculty, and let it be a law that every student of medicine, finance, forest-culture, &c., shall have to pass certain examinations in certain of these sciences, before commencing his special studies. For medical students I would prescribe, without hesitation, chemistry, physics, zoölogy, botany, mineralogy and geology. Let them pass the examination in these branches as soon as they are ready, whether at the end of one, one and a half, or two years. We may may rest assured that the additional semester given to these studies will be abundantly made up afterwards, when the student enters upon the practical studies.

If a young man has passed his examination in these branches, let him pass on to anatomy and physiology, and devote sufficient time to their study, in order to be able to stand a thorough and comprehensive examination. When this is done, at the end of one or two years, he passes on to the practical studies. And here, again, I would say that an additional semester or two, devoted to anatomy and physiology, will be fully made good when the student enters upon the practical branches.

Let this be the end of examinations upon the sciences above named. The student no more needs to be re-examined in them than in the studies of the gymnasium.

I will dispose of one objection which may be made—the liberty of learning (Lernfreiheit). Facts dispose of this objection; there is no medical student who has not gone through the course above given in its natural order, so that there is no restraint in compelling him to follow it. But if we would give him all the help possible, it would be easy to order that the lectures in question might be attended when the student chose, but that one half-year must intervene between the two examinations. Then everyone can study, for instance zoölogy, while he is engaged upon his anatomical work, and thus arrange the order of studies to suit his own needs.

In conclusion, I would point out some essential advantages of these arrangements. The general mode of conducting examinations brings the juries into closer connection with the scientific public, keeps up the interest in the schools among a large class of elder men, and thus furthers the interests of the institutions themselves. The special order for medical studies gives the *parents* some satisfaction. At present, they maintain their son five or six years at the University, without being able to get any other than private testimony as to his progress, for the written testimony to diligent attendance upon the lectures which the student brings home is generally known to be merely equivalent to a certificate of payment of lecture-fees. Many a one learns, to his horror, after five years, that his money has been thrown away. But a repeated examination, previous to the final one, furnishes what is of great consequence to many parents—actual evidence of their son's studies.

NIGHT-BLINDNESS AMONG THE FRENCH PRISONERS AT LINGEN.

By Dr. **Bumke.** Translated from the 25th Vol. of Virchow's Archiv, by Dr. B. Joy **Jeffries.**

The affection of the eye known as hemeralopia has shown itself among the prisoners in the barracks here at Lingen. Five cases were noticed in the hospital, and a larger number in the barracks. Intense light is the cause assigned by authorities for this condition of the retina, in which it does not respond to twilight, moonlight or artificial illumination. The correctness of this is shown by the conditions here.

February of this year, at Lingen, was mild and almost cloudless. During the winter the prisoners were mostly in the barracks, but with the commencement of good weather, work on the canal began. At this the prisoners had their eyes innured to bright sunlight, having been even unaccustomed to clear daylight, and after work was over they returned to their dark lodgings. All the patients remembered most distinctly the pain they suffered in their eyes from the blinding sunlight.

The connection suggested by Bampfield between this ocular affection and scurvy, was not established. None of the patients suffering from scurvy were troubled with night-blindness. It seemed of special interest to find how the retina, when thus affected, would respond to artificial light during the *daytime*. The result was as follows:—

1st. The retina is, under these conditions, more sensitive to light, than, *cæteris paribus*, during the evening or night.

2d. It is, however, less sensitive than in daylight. As to the rest, the cases observed were readily cured. Tempering the light was sufficient to produce almost a complete relief.

Selected Papers.

SANTA BARBARA AS A SANITARIUM.

By Thomas M. Logan, M.D., Permanent Secretary of State Board of Health, California.

I purpose confining my remarks chiefly to that portion of Santa Barbara which consists of a coastwise strip of land, averaging about three miles in width and some sixty or so in length, and extending in a due westerly course from Point Conception to Point Buenaventura. Bounded on the north by the Coast Range mountains, of an average height of 3,000 feet, which prove an insurmountable barrier to the peculiar harsh oceanic winds, and on the south by a channel formed by the Santa Crux and other islands, some twenty miles distant, which serve as well to deflect the cold current that sweeps down from the Arctic seas as to afford protection from the concomitant cold fogs that roll in so uninterruptedly in other parts of the coast, this portion of California stands out preëminently the land of promise to the weary, desponding invalid.

The very conformation and topography of this section, while it explains the cause, speaks to the intelligent reader of a climate that cannot be otherwise than even, mild and soft, and, at the same time, invigorating with the moist, but refreshing sea breezes, which the thirsty land sucks in. In vain, heretofore, since my appointment to the responsible position of Health Officer to the State, have I sought for such a combination of sanitary qualities as are now presented. Here in this mountain and island locked valley, rising but a few feet from the blue waters of the grand old Pacific, all the prerequisites of health are to be found in measure so profuse, that I would be accused of poetic extravagance, were they duly portrayed. * * * * * *

Santa Barbara is the county seat and principal town of the county of the same name. It is built upon a beautiful slope, rising from the sea-beach, at the south-eastern extremity of a gently-ascending valley, some fifteen miles in length and two in width, but gradually spreading out to five miles, as it extends into the interior. The beautiful harbor consists of a cove, or semi-ellipse, about one and a half miles wide from point to point, indented into the curving shore and protected by the overlapping San Rafael and adjoining ranges. The gently-sloping beach for several miles affords safe sea-bathing at all seasons of the year. At low water, an admirable and pleasing drive, equal to that of Newport, may here be had, and the interesting drawing of the seine, full of every variety of fishes, may be witnessed—a most important item in the dietary of the feeble, from the warmth-giving phosphorus it contains.

The historical feature and nucleus of this old Mexican town, now in an active transition stage, is the old Mission Cathedral, about one mile and a half from the shore, and at about 300 feet elevation from the sea level. It is built of sandstone of the surrounding hills, and one is struck with the ancient grandeur of its imposing Moorish style of architecture. * * * *

About four miles from the town, picturesquely located in one of the canons of the mountains, are the hot sulphur springs, which have become favorably known as a place of resort for invalids, especially those suffering from rheumatic affections. * *

The waters are found of different temperatures, varying from 60 to 130 degrees, Fahr.; but I would advise invalids resorting to them for relief not to indulge too long at first in their relaxing influence, as very often patients, feeling themselves immediately improved by their use, are apt to resort to them too freely.

As to the climate of Santa Barbara, it will be seen that, although lying in about the same latitude as Charleston, S. C., yet it is totally different, and that the isothermal line would be deflected towards St. Augustine, Florida. The same clothing is worn all the year round, and there is no day in the year in which the invalid may not sit out of doors. This covers the most essential indication in the treatment of consumption, by affording a continuous supply of pure, unadulterated air-food for the lungs. Still, as the climate possesses some latent peculiarities in its favor, too subtle for ordinary observation, I shall instance the remarkable phenomena, so philosophically noted by Dr. Brinkerhoff, who has resided here 18 years.

"Some ten miles from Santa Barbara, in a westerly direction, in the bed of the ocean, about one and a half miles from the shore, is an immense spring of petroleum, the product of which continually rises to the surface of the water and floats upon it over an area of many miles. This mineral oil may be seen any day from the deck of the steamers plying between here and San Francisco, or from the high banks along the shore, its many changing hues dancing upon the shifting waves of the sea, and affording various suggestions, both for the speculative and the speculator. Having read statements that, during the past few years, the authorities of Damascus and other plague-ridden cities of the East have resorted to the practice of introducing crude petroleum into the gutters of the streets to disinfect the air, and as a preventive of disease, which practice had been attended with the most favorable results, I throw out the suggestion, but without advancing any theory of my own, whether the prevailing westerly sea breezes, passing over this wide expanse of sea laden petroleum, may not take up from it and bear along with them to the places whither they go, some subtle power which serves as a disinfecting agent, and which may account for the infrequency of some of the diseases referred to, and possibly for the superior healthfulness of the climate of Santa Barbara."

I would add that during one week's sojourn here, my attention has been directed to the peculiar ambrosial influence pervading the air, so well described above, and that I indorse all that has been stated in this respect. That the climate of Santa Barbara possesses all the elements of general healthfulness in an eminent degree, is substantiated by the facts that the epidemics and diseases incident to childhood are almost unknown. Fevers and agues never originate here. Smallpox, frequently brought from abroad, never spreads, although hundreds of the native population, either from ignorance or prejudice, never allow themselves to be vaccinated.

I have said, when speaking of the prolific yield of the soil, that it was due to the moist sea air. On this depends the deliciousness of the climate. Moist air, either too hot or too cold, is injurious. The latter chills the surface and drives the blood in upon the internal organs. But the moist air in which we bathe in Santa Barbara is possessed of that happy combination of temperature with moisture, which, while it refreshes, also invigorates and vitalizes equally the whole system. The range between the wet and dry bulb thermometers, at 2, P.M., is usually about four degrees, except on foggy or rainy days, when it is sometimes identical; and yet, strange to say, the feeling of chilliness is never experienced. During the prevalence of a high land wind, the range is occasionally extended to ten or even twenty degrees; but even then that feeling of irritation and dryness, which attends the same wind in the more northern portions of California, is unknown. This occurrence, however, does not happen oftener than once or twice a year, and then only for a brief period about the equinoxes.

Monthly Mean of Temperature.

April - -	average of the three-daily observations,	60.62
May - - -	" " " " "	62.35
June - - -	" " " " "	65.14
July - - -	" " " " "	71.49
August -	" " " " "	72.12
Sept. - -	" " " " "	68.08
October -	" " " " "	65.96
Nov. - - -	" " " " "	61.22
Dec. - - -	" " " " "	52.12
January -	" " " " "	54.51
Feb. - - -	" " " " "	53.35
March - -	" " " " "	58.42
	Average temperature for the year - - - - - - -	60.20

—*Scientific Press, San Francisco, Cal.*

CASES OF CANCER TREATED WITH CUNDURANGO.

By D. W. Bliss, M.D., of Washington, D. C., Professor of Urinary Pathology in the Medical Department of Georgetown College.

My attention was first attracted to this remarkable agent during a professional attendance upon Mr. Flores, the minister from Ecuador, through whom his government had conveyed to our Secretary of State a portion of the shrub, together with printed statements of its successful employment by eminent South American physicians. Having always conceived that a remedy would sooner or later be discovered for the cure of carcinoma and tuberculosis, so long the *opprobria medicinæ*, I was at once interesten in the direct and encouraging exposition of the Quito doctors. With the hope of benefiting my own patients, and effecting some good for others, I determined promptly to test its merits by actual experiment, regardless of the charges and possible opposition to which I knew my honest efforts would be subjected by the hypercritical and ungenerous of my professional *confreres*. Fortunately, several cases of unequivocal carcinoma were then under treatment. Accustomed to the remorseless ravages of a malady for which even the surgeon's knife afforded no adequate relief, I approached the experiment not without misgivings of success, but with the affixed purpose to render the test as complete as the limited supply of the plant in my possession would allow.

Mrs. Matthews, the mother of Hon. Schuyler Colfax, had been the victim of mammary cancer for a long period, which had already assumed secondary and constitutional symptoms in a marked degree. On the 29th of April last, I placed her on the decoction of cundurango, and had the gratification of observing an early and decided change for the better, in both the local and general conditions. One of its almost immediate effects was the relief of pain, and a free diaphoresis, characterized by an odor distinctly observable of the infusion itself. Upon the return of Mrs. Matthews to her place of residence in Indiana, I still continued to direct her treatment, and furnished the requisite supplies of the medicine.

On the 9th of May, just thirteen days after the commencement of the new remedy, her husband addressed me a letter, from which I make the following extracts:

* * * * * *

"The stony condition of the tumor has given place to softness. This morning I notice about one-third of the surface has turned from a scarlet to a white color, and it has commenced suppurating as though the thing were dead and coming out. The whole tumor is very much flattened, the discharge is different and not near so offensive. The greatest improvement is in her complexion. From a *tallowy*, puffy-looking, and somewhat bluish skin, she is regaining her old natural look, the skin shrinking, becoming wrinkled and clear.

"I am so happy in the prospect of a cure that I feel like a new man, as though a ton of lead had been lifted from my heart. Is it not a little singular, it has not had any perceptible effect on her nervous system? Her digestion is good, and she begins to feel that she will get well."

On the fourteenth of the same month Mr. Matthews writes as follows:

"This is the seventeenth day since I commenced the use of cundurango; shall cease for a few days, and note carefully the effect. When I began the treatment, Mrs. Matthews's breast was almost as hard as a stone, about four inches in diameter, the cancer itself two inches in diameter, with raised edges, hard and scarlet-colored, bleeding profusely at the slightest touch, emitting an odor of the most sickening and disagreeable kind, discharging a brownish, cancerous, limpid fluid; the countenance bloated, tallowy-looking, with a bluish pallor of the whole face; the lips turned blue at the least exertion, so that I have been very much alarmed, fearing a rapid crisis and dissolution; at the same time the tumor itself enlarged with fearful rapidity, so much so that I could notice the growth from day to day.

"Now all is changed—the countenance has resumed its old, familiar look; she moves about with great sprightliness, the blue of the lips no longer indicating fatigue or effort. The granular swelling under the chin is gone; strength increasing; the tumor itself much flattened and decreased in protuberance; the color changed to a white, maturating sore; the limpid cancerous discharge ceased, and in its place a healthy discharge of white matter much less offensive; the hardened glands are soft to the touch, the whole symptoms indicating most plainly to me that the treatment has, so far, neutralized the poison of the blood, and that another short campaign with cundurango will insure a complete cure."

On the 2d of the present month I visited Mrs. Matthews, at South Bend, and was indeed astonished at the rapid change which had taken place. The tumor had become soft, the color natural, the secondary glandular deposits had all disappeared. The improved complexion, muscular firmness, and elasticity of spirits, all pointed to an early and complete recovery.

Mrs. Handy, residing on M Street, in this city, was the next subject of experiment with the cundurango. This was a highly-typical and fearfully-advanced case of cancer uteri. The grayish color, unequal, irregular elevations of the ulcer edges, the sympathetic disturbance of the bladder, the paroxysms of intense pain, together with the hot, dry, shrivelled, yellow surface, the wasted muscles, sunken eyes, the small, quick, wiry pulse, revealed one of those sad cases, where all hope of remedy fails.

The cundurango, in the form of decoction, was administered first to Mrs. Handy on the 31st day of last month. A regular record has been kept from day to day, describing the least change of symptoms, but I have not the space to introduce it here. Suffice it that even in this extreme case the beneficial effects of this wonderful remedial agent have been most apparent. The pain has steadily declined, the diseased parts are less tumefied and sensitive, and the discharge is very slightly offensive. The cachectic appearance of this patient has much improved, and she expresses herself as feeling altogether better.

A lady of the family of Hon. Mr. Gorham, Secretary of the United States Senate, has had mammary cancer of several months' duration, and her condition was pronounced hopeless by leading Northern surgeons. I was called to see her on the 1st of June, of this year, and found cancer of the breast, with secondary deposits in the shoulder and humeral portion of the left arm, attended by extreme rigidity of the neck, and almost complete immobility of the affected limb.

A careful daily record has been preserved of this case, also, by which the most decided improvement is indicated. The mammary tumor has grown softer, and the line of skin-attachment bisecting the nipple is much less marked. The head, before stiff, is now perfectly free and movable, while the natural mobility of the disabled arm is restored, and the tissues, before hard, are now soft and natural. The general condition progresses favorably *pari passu* with with the local improvement.—*New York Medical Journal.*

Medical and Surgical Journal.

Boston: Thursday, July 20, 1871.

THE CLIMATE OF CALIFORNIA.

We are glad that our brethren on the Pacific shore are willing to admit—a fact which must necessarily be learned by experience—that no climate, even in their own favored region, can be strictly a panacea for pulmonary diseases; moreover that it is not a State or a country which can purchase immunity from disease. True, the physical condition of a State gives a general tone to its climate; but special localities, a favorable physical conformation of surrounding country and agreeable social relations are essentials in seeking a health resort.

Many of the medical men who attended the convention of the American Medical Association did so partly with a view to investigating the climate of California, of proving the claim made that there was no climate in the world which could compare with it in the treatment especially of pulmonary diseases.

The gentlemen having this object in view, visited many localities in the central portion of the State, the advantages and climate of which had been lavishly praised by the San Francisco press and people. Santa Cruz and San Rafael were among the places visited. Dr. Logan, of Sacramento, Health Officer of the State, accompanied them, hoping that they would find, at more than one locality, the object of their search. But the result utterly failed to justify the general clapping of hands over the climate that has been going on so long and boisterously. The visitors turned their faces homeward in the firm belief, which some of them expressed, that California had no *climate at all!*

The Editor of the *Sacramento Reporter* says:—

"The notion so long and fondly held by our people, that California is a vast sanitarium, is effectually exploded. On the whole, California is a highly favored State, rich in her agricultural, mineral and other resources, and possessed of a good climate; but it is far from true that invalids from other parts of the country can come here and find everywhere within our borders the balm they seek."

Dr. Logan, however, has pushed his investigations so far, by visiting all parts of the State, as to have found, in his opinion, a region which answers all the requisites; and we congratulate him that his endeavors have been so well repaid in finding a favorable locality for those suffering from pulmonary diseases. He has given a report on that portion of Santa Barbara extending from Point Conception to Point Buenaventura, which, from the topography of the region and the conformation of the land, offers the most favorable conditions for uniformity and mildness of climate.

Dr. Logan will soon submit to the State Board of Health of California an elaborate report on this subject. The *Alta California* predicted, a short time ago, that Santa Barbara would be recognized in a few years as one of the best sanitaria on the Pacific coast; our California friends would have us believe it one of the best in the world. We give an abstract of Dr. Logan's article on Santa Barbara, which will furnish our readers with the facts, from which they can judge for themselves. We regret he has not given us the result of his hygrometric observations; certainly an important point in the consideration of climate.

THE PRESIDENT OF THE MASSACHUSETTS MEDICAL SOCIETY.

The quarterly meeting of the Hampshire District Medical Society at Northampton, on the 6th instant, was made the occasion of one of the pleasantest gatherings which that Society has ever known. On that day, the members of the Society, together with a number of physicians from other parts of the State, beside clerical, legal and non-professional friends, became the guests of Dr. Samuel A. Fisk, the President of the Massachusetts Medical Society.

The stated meeting of the Society was held in the morning, at which the usual variety of papers and discussions were introduced. At about half-past two, the members, with other invited guests, sat down in the elegant dining-room of a new hotel erected in the town, and after an hour spent in a practical discussion of the sumptuous dinner provided, the time, until nearly half-past six, was devoted to one of the most entertaining and agreeable of after-dinner exercises. The speeches were rich in thought, wit, pleasantry and good sound sense, and were greeted with many and vigorous demonstrations of approval. The feeling of satisfaction was unanimous among those present, and it was with reluctance that the company was compelled to separate.

We are tempted to make extracts from two of the speeches, containing sentiments which members of the profession will endorse. At the conclusion of the dinner, Dr. Fisk rose, and, after a few preliminary remarks, said:—

This year I enter upon the duties of an office bringing with it the highest professional honors of my life—given me by the kindness and generosity of my medical brethren throughout the Commonwealth.

Having attained what is called "middle life;" in other words, having reached the summit of the hill of life—which we all climb—with my face now turned to its western slope, where the shadows are lengthening rapidly, I seem to see—"*Facilis descensus*"—posted all along the downward path—very much as we see the face of nature in our beautiful landscapes defiled by the obscene advertisements of venders in quack medicines, or of shop-keepers whose avarice has overcome their sense of decency and propriety. (Applause.)

As I turn and look back to my own eastern horizon, and let my memory run along the events of the last half century, I see startling scientific discoveries, marvellous revolutions in the political and religious world, and wonderful improvements and achievements in the arts, rising, as peaks and spurs of the mountains rise from the plain, when we survey them from an eminence.

Thinking of these things, gentlemen, I wished to have those whom I like to call my friends gather about me and rejoice with me. I wished to have my medical brethren of this town and neighborhood, and from other towns, here—that you, gentlemen, not of the medical profession, might meet and become acquainted with them, for I know them all, and know them well, and know them to be worthy of the esteem and respect of the community. * * *

It fills me with pleasure to entertain you as my guests at this time; and for the kind and cordial manner in which you have responded to my invitations, I thank you, gentlemen, each and all.

I regret that we are deprived the pleasure of meeting here to-day, a large number of distinguished gentlemen of my own and other professions, whose letters of regret are filled with the kindest sentiments for the profession and for the Hampshire District Society. I can detain you to read but one, from a staunch, true and loyal member of the Massachusetts Medical Society, Dr. Asa Millet, of Bridgewater, Mass., which closes with the following sentiment:—

> "May the Hampshire District Medical Society ever, as now, hold high rank in the profession, and be a firm wall against the inroads of quackery in every form."

[At this point, some one called for three cheers for Dr. Fisk, and they were given with a will.]

I give as the first toast in order:—

The Hampshire District Medical Society.—Ably and fitly represented in its president.

Dr. Franklin Bonney, of Hadley, responded in these words:—

Dr. Fisk,—In behalf of the Hampshire

District Medical Society, I return you their sincere thanks for your kindly mention of them, and also for the invitation which brings them into such pleasant social relations upon this occasion. Gathered at your call, the earliest guests of this beautiful house, dedicated to the refreshment and comfort of the public, we recognize and accept with gratitude the hospitality that has spread these tables so profusely with whatever might prove attractive to the eye, the ear and the taste. * * *

We also thank you for bringing into our midst these cultivated medical gentlemen from abroad, some of whose names are recognized the medical world over, as those of masters in the profession. We feel highly honored by their presence here today. * * * *

In coming together in social converse, we learn to know and respect each other more fully.

Sir, we accept of all this as an earnest of your friendship for the members of the Society, and of your purpose to strengthen more fully the bonds that have held us in mutual respect and regard in the past.

At the dinner-table of the State Medical Society, in Boston, you assured those present that there was no Society in the State more intelligent or more harmonious than this. We accept of this occasion as an assurance, on your part, that, so far as you are concerned, nothing less shall be truthfully said in the future.

Gentlemen of the Society, let us see to it that we preserve and maintain the good name accorded to us. And also, as the State Society has complimented us by taking their present president from our number, and as a distant State has found fitting material within our limits for the making of a professor in an important branch of medical study, let us not, by any default of ours, fall from this goodly estate.

The Science of Medicine is one of growth. It is making rapid strides forward, and if we be laggards we shall soon find ourselves far in the background. In such case, we cannot hope to retain our self-respect, neither can we claim the respect of our fellows or of the community. Let us then go to work in earnest, with the higher purpose of attaining to all that may lie within our reach. Let us not be satisfied to walk the beaten paths of routine, along whose sides the buds of truth refuse to unfold themselves, and nothing but shrivelled fruits meet the gaze; but rather let us push forward into those wide and illimitable fields which are constantly opening upon our view, from whose virgin soil spring, in profusion, the choicer fruits, and the more fragrant flowers; and with sharpened sickles let us gather the waiting harvest, to be laid, not upon the shrine of personal ambition, but to be offered upon the altar of suffering humanity.

Sir, this is your occasion, and without violating its proprieties, and fairly claiming exemption from criticism and misinterpretation, I cannot refrain from alluding to our long-continued personal relations. For nearly a quarter of a century, you and I have walked side by side in the practice of our profession, and never has a thought or word of an unpleasant nature come between us.

I have often sought your counsel, and you have given it frankly and judiciously. When absent from home for any reason, you have done my work cheerfully and faithfully. When sickness has invaded my family circle, you have rendered us such aid as lay in your power. And when the waves of affliction and adversity have threatened to submerge me, you have given me such words of good cheer as have helped to buoy me up, and have enabled me to breast the threatening tide. And I must be permitted to allude with gratitude to that kindly Presence that dispenses so gracefully such sweet courtesies to all your friends, and fills your home with gladness.

For all this I have cherished the deepest gratitude. And when, as has frequently happened, you have had trial and affliction, I have not failed to extend to you my heart's profoundest sympathy.

In behalf of the Medical Society, I again thank you for all the amenities of this pleasant occasion.

I give you this sentiment:—

***The Hampshire District Medical Society.*—Pledged now and henceforth to a community of feeling and of effort in the interests of Fraternity and Humanity.**

We wish our space were sufficient to give the speeches by the venerable Bank President, Hon. Eliphalet Williams, by Drs. Cotting, Williams and DeWolf, and by various gentlemen of the other professions, all of which abounded in excellent points, and showed the high respect felt by those who are his neighbors and best friends toward one whom the profession throughout the commonwealth also delight to honor, the President of the Massachusetts Medical Society. Many kind words were sent to Dr. Fisk by gentlemen who were unable to be present; among others the following lines were received from Dr. Stone, of Wellfleet, whose grandsire was, a half-century ago, a physician of the old school in "Endfield":—

From the sterile plains of old Cape Cod,
From rough Atlantic's yellow strand,
We proffer you a hearty greeting,
As brethren of more favored land,
Now toiling for the sick man's weal,
Amid old Hampshire's vales and hills,
Where Tom lifts high his wood-crowned head,
And Holyoke pours his silver rills,
Two stern and silent sentinels,
Guarding the fair and joyous river,
Whose bright waves, as they glide between,
In sun or shadow, laugh or quiver.

This be my message, brothers brave:
"Be to convictions true,
Cast not an ancient faith aside,
Ere time has proved the new."

PARALYSIS OF THE DIAPHRAGM. By Dr. D. W. FLORA, Newaygo, Mich.—J. R., aged 42 years, of the nervo-bilious temperament, was attacked with bilious intermittent fever about the 1st inst. I relieved his former medical attendant on the fourth day after the vomiting and hiccough had set in. No former treatment had the effect to abate the symptoms in the least. The singultus had been produced by the bilious vomiting, and the vomiting and gastric irritation have characterized the intermittent fevers of this locality the past year to an extent which I have never before witnessed, even in the worst malarious regions to which I have been called to practise.

Between hiccough and vomiting, the man had had no sleep for at least four days and nights. When called, I found the patient just beginning to come out of a "fit." The extremities were not cold; the pulse was weak, but not rapid or irregular. What attracted my attention was the puffy and livid appearance of the face and upper portion of the body.

Suspecting the trouble to be of the respiratory function, I watched his breathing, and found the *diaphragm* to be in fault. Just as soon as the patient fell into a slumber and ceased his *voluntary* efforts at breathing, *respiration* ceased altogether. This state of things was difficult to manage, and twice in my absence the attendant allowed him to sleep too long, and he had to be brought out of the "fit" again by vigorous slapping of the chest and extremities and douches of ice-water.

Twenty-four hours after I first saw him the intellect began to waver, and a hallucination seized the mind of the patient "that his time had come, that he was dying," &c. While laboring under these morbid delusions of the senses, it was with extreme difficulty that he could be induced to make any voluntary efforts at breathing.

I should have stated that previous to this mental derangement, I had succeeded in arresting both the vomiting and hiccough.

The extreme acidity of the stomach was overcome by the following:—R. Sodæ bicarb., ʒi.; morphia sulph., gr. j.; M. Ft. chts. No. viij. S. One every hour. Four hours after I saw the patient, I administered hydrarg. submur., gr. xxx., in sach. alba, in the dry state, upon the tongue. Previous to this, all medicine in the liquid form had been rejected. Only two hours elapsed after the administration of the last recipe before both vomiting and hiccough ceased.

The call for sleep was so imperative after the cessation of the hiccough and vomiting that the patient could not resist, and the feeling that the patient experienced was that of painless death. I will not attempt to decide whether it was really paralysis of the diaphragm, or loss of tonicity, of muscular contractility. Practically, the effect upon the patient was the same. After falling into another spasm the patient insisted that he had died, but that we had galvanized him into temporary life again. When exhorted to breathe, to try and help himself, his reply was, "how can a dead man breathe?" This impression of dying is not so unusual as to require mention here, but when it is remembered in what condition the *involuntary* muscles of respiration were, the importance of *voluntary* effort becomes apparent. Nothing but aqua ammonia, applied to the nostrils by moistening the tip of the forefinger, would excite any voluntary action.

This state of things lasted about six hours, when the patient rallied; his mind became more rational, the breathing better, and in the next twenty-four hours he was allowed to sleep twenty or thirty minutes. From that time until the present, the patient has slowly but steadily improved under tonics, stimulants, and a generous diet.

There are cases on record of persons being able to die at will, and of being restored to life again, even after being buried for many days. Whether this one would have resulted in a case of suspended animation or catalepsy, I cannot tell; but if a case of this kind *should* make a die of it, would it not be well to keep it awhile before burial?—*Cincinnati Lancet and Observer.*

NEW TREATMENT FOR SMALLPOX.—Dr. J. J. Garth Wilkinson, of London, England, has called the attention of the medical world to a new method of treating smallpox, which he has tried in four cases of varied degrees of violence, with complete success. In these cases he used *hydrastis canadensis* and *veratrum viride* both internally and locally as a lotion. The former, he says, extinguishes the varioloid poison, while the latter subdues the inflammation and primary fever. With regard to diet, he advises a judicious use of brandy and water, claret, Carlowitz or Hungarian wines (port when the patient has begun to amend), beef-tea and (in convalescence) fruit. He claims for this treatment that it abridges the duration of the disease, makes it almost painless, subdues the inflammation and primary fever, annuls the secondary fever, checks pustulation, prevents itching and stench, and saves the patient from any but the slightest pitting. He also claims for the *hydrastis* that it is an effective prophylactic or preventive to ward off the approach of the disease. He has published a pamphlet on the subject, which has attracted much attention in London, and will no doubt have a wide circulation among the profession. The plant named *hydrastis canadensis* is found within the limits of New York State, and probably elsewhere in the United States and Canada, and its tincture is made and sold for medicinal purposes. The plant is popularly called orange root, and sometimes yellow puccoon, but it must not be confounded with another plant commonly called puccoon.—*Canada Lancet.*

Two Cases of Paralysis of the Forearm after Dislocation of the Head of the Humerus. M. Bernhardt.—I. December 14, 1867, L., forty-three years old, dislocated his left humerus by falling on his left shoulder. He had pain in the shoulder, and found it impossible to move his arm, and that felt cold. The dislocation was found to be subcoracoid, and after eight days it was reduced. The pain ceased, but the paralysis continued. In the palm of the hand there was, after three weeks, considerable scaling of the epidermis. Pressure on the shoulder was not painful, but a strong grasp of the triceps and of the muscles of the forearm was unpleasant. Occasionally, there was a sense of formication from the middle of the arm down the extensor side of the forearm to the ends of the fingers. The left arm could be raised in a straight line forward about half a foot, but could not be carried backward nor across the breast. The forearm could not be bent on the arm, only the supinator longus was rendered tense. Extension was impossible; supination was slight. The hand could be raised somewhat. Adduction, and abduction of the hand, flexion and extension of the fingers were impossible. The prick of a needle was felt to the upper border of the lower third of the arm on both sides equally. In the lower third of the left arm, in the elbow joint, and the upper part of the forearm, the skin is more sensitive on the right than the left. In the rest of the forearm, in the hand and fingers the sensation is a little less on the left than right, but nearly equal. The muscles of the arm and forearm, of the hand and finger, as well as the deltoid, showed only the slightest reaction to the induction current. Likewise the use of a very strong galvanic current, either to nerve or muscle, by opening or closing, failed to produce contraction.

From the 5th of January, every other day the patient was treated with a strong galvanic current, the anode and the cathode being placed on the paralyzed muscles. After four weeks he could raise the arm forty degrees, also some distance backward so as to touch the right shoulder with the left hand. Also, he could bend the forearm on the arm, and had some motion in the hand and fingers. After eight weeks more, motion was nearly restored.

II. February 7th, F., sixty years old, fell on the left shoulder. There was found subcoracoid dislocation five days later. There was no power to move the arm at the shoulder, and only slight power over the forearm and hand. Numbness with pinching was felt in the forearm and hand. There was but little improvement under the galvanic treatment.—*Journal of Psychological Medicine.*

Phosphorus Pills.—Dr. Radcliffe, having tried various means of administering phosphorus, has at length succeeded in effecting this in the form of pills; and as other medical men are now ordering phosphorus in this form, we thought it desirable to publish the formula for the information of our readers. Take of phosphorus six grains, suet six hundred grains, melt the suet in a stopped bottle, capable of holding twice the quantity indicated; put in the phosphorus, and when liquid, agitate the mixture until it becomes solid; roll into three-grain pills, and cover with gelatine. Each pill will contain one-thirty-third part of a grain of phosphorus.—*Pharmaceutical Journal.*

Medical Miscellany.

Suggestions to Correspondents and Readers.—Articles intended for publication in the Journal must be written plain and distinctly, on one side of the paper only, properly paged, and with suitable divisions into paragraphs. If so prepared, it is seldom if ever necessary that a proof of the article be sent to the writer. The punctuality required in the issue of a weekly periodical allows little time for proof-alterations or additions. When a proof is sent out, it should be returned to the office *promptly*, as the press in no case will be kept waiting for it.

Anonymous communications will not be published, unless the name and address of the author are entrusted to the Editor.

Accepted articles will generally be inserted in the order in which they are received; this rule will be waived, however, should the nature of the subject or the interest of the Journal require it.

Rejected articles will be returned, if stamps for the requisite postage be sent.

Letters, requiring answer, addressed to the Editor or Publishers for the benefit of the writer, must enclose stamp to ensure a reply.

Original articles, reports of societies, items of medical news, and professional communications of all kinds will be gladly received from members of the profession, wherever resident, so far as they pertain to topics of general interest. In the transactions of societies, the discussions which relate to questions of local importance, reports of business details, debates *in extenso*, and personalities of all kind, will, as a rule, be excluded.

The Editor does not hold himself responsible for the views and opinions expressed in articles published; nor will their publication be considered, in any way, as his endorsement of their sentiments.

Gonorrhœal Peritonitis.—A correspondent of the *British Medical Journal* calls attention to gonorrhœa as a cause of peritonitis in the female, and believes the Fallopian tubes to be the avenues through which the inflammation reaches the peritonæum. In his experience, the disease differs from puerperal peritonitis in being less severe and of shorter duration, in manifesting improvement upon the removal of as much of the cause as is possible by means of injections of warm water, and upon treating the inflammation by the usual means. No case, he says, has proved fatal in his practice; but he fails to state the number which he has had under observation.—*Med. Record.*

Ulceration of the Frænum Linguæ in Pertussis is referred to, by a writer in the *Glasgow Medical Journal*, as a diagnostic sign of this disease. This lesion has been before noticed by a few writers, who have considered it a specific form of ulceration. The writer quoted considers it to depend upon friction of the frænum against the lower incisors during the spasmodic expiratory efforts, and it was discovered by him in 111 out of 252 cases of children in whom the disease was well marked; its location being in front of the frænum, excepting when there was absence or malformation of the lower incisors. It never occurred before dentition had taken place, nor in such children as did not protrude the tongue during the cough.—*Med. Record.*

A touching incident is recorded in the annual report of the trustees of the National Portrait Gallery, which has just been issued. Referring to the visitors—3291 in number—on Easter Monday last, the trustees subjoin the following extract, amongst others, from the report made on that occasion by the Secretary to the Chairman:—"Dr. Jenner, although now placed very high and in an unfavorable light, did not escape frequent observation. A woman, pointing to it, said to her girls, 'There's the one that's making such a lot of children suffer now from vaccination.'"—*Med. Times and Gazette.*

To Correspondents.—Communications accepted:—Uterine Hæmorrhage.

Correction.—On page 21, first column, eighth line from foot, for "nerve tissue" read *new tissue.*

Notice.—In future, copies of the Journal may be found on sale at the store of A. Williams & Co., 135 Washington Street.

Deaths in fifteen Cities and Towns of Massachusetts for the week ending July 15, 1871.

Cities and Towns.	No. of deaths in each place.	Prevalent Diseases. Cholera Infantum.	Consumption.	Dysentery and Diarrhœa.	Scarlet Fever.
Boston	215	79	18	8	1
Charlestown	18	6	2	2	2
Worcester	39	10	5	0	2
Lowell	39	5	3	1	1
Milford	4	1	1	0	0
Chelsea	4	1	1	0	0
Cambridge	20	8	2	0	0
Salem	8	2	1	1	1
Lawrence	9	2	3	0	0
Springfield	3	1	1	0	0
Lynn	5	0	1	0	1
Newburyport	2	0	1	0	0
Somerville	10	5	1	0	1
Fall River	14	6	2	1	0
Haverhill	2	0	1	1	0
	383	126	43	14	9

Five deaths from smallpox; four in Lowell, and one in Boston.

George Derby, M.D.,
Secretary of State Board of Health.

Deaths in Boston for the week ending Saturday, July 15th, 215. Males, 113; females, 102. Accident, 6—apoplexy, 3—inflammation of bowels, 6—disease of the bowels, 6—bronchitis, 3—inflammation of the brain, 3—congestion of the brain, 3—disease of the brain, 6—cyanosis, 1—cholera infantum, 80—cholera morbus, 4—consumption, 18—convulsions, 5—croup, 1—debility, 5—diarrhœa, 5—dropsy, 1—dropsy of brain, 7—drowned, 1—dysentery, 3—dyspepsia, 1—erysipelas, 1—scarlet fever, 1—typhoid fever, 1—disease of the heart, 2—inflammation of throat, 1—intemperance, 4—disease of the kidneys, 3—congestion of the lungs, 1—inflammation of the lungs, 2—marasmus, 4—measles, 1—old age, 2—premature birth, 6—malignant disease of testes, 1—suicide, 1—scrofula, 1—smallpox, 1—disease of spine, 1—tumor, 1—paralysis, 3—whooping cough, 1—unknown, 7.

Under 5 years of age, 138—between 5 and 20 years, 12—between 20 and 40 years, 30—between 40 and 60 years, 17—above 60 years, 18. Born in the United States, 160—Ireland, 39—other places, 16.